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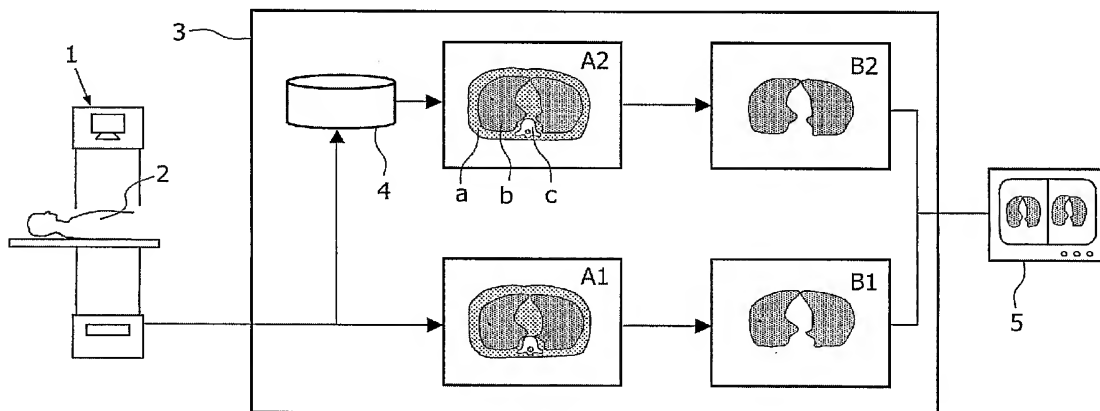


(43) International Publication Date
25 August 2005 (25.08.2005)

PCT

(10) International Publication Number
WO 2005/078662 A1

- (51) International Patent Classification⁷: **G06T 7/00**, 3/00, G06F 19/00
- (21) International Application Number: PCT/IB2005/050433
- (22) International Filing Date: 2 February 2005 (02.02.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 04100580.2 13 February 2004 (13.02.2004) EP
- (71) Applicant (for DE only): **PHILIPS INTELLECTUAL PROPERTY & STANDARDS GMBH** [DE/DE]; Stein-damm 94, 20099 Hamburg (DE).
- (71) Applicant (for all designated States except DE, US): **KONINKLIJKE PHILIPS ELECTRONICS N. V.** [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **BLAFFERT, Thomas** [DE/DE]; c/o Philips Intellectual Property &, Standards GmbH, Weissshausstr. 2, 52066 Aachen (DE). **WIEMKER, Rafael** [DE/DE]; c/o Philips Intellectual Property &, Standards GmbH, Weissshausstr. 2, 52066 Aachen (DE).
- (54) Title: APPARATUS AND METHOD FOR REGISTERING IMAGES OF A STRUCTURED OBJECT
- (74) Agents: **VOLMER, Georg** et al.; Philips Intellectual Property &, Standards GmbH, Weissshausstr. 2, 52066 Aachen (DE).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



(57) Abstract: The invention relates to an apparatus and a method for registering a first image (A1) with a second stored image (A2) of an object such as the chest (2) of a patient. The images (A1, A2) may, for instance, have been produced by an X-ray CT system (1) and be used in the trend control of lung tumors. The images (A1, A2) are automatically segmented into various object constituents (a, b, c). Following this, only image areas (B1, B2) of object constituents (b) relevant to the task in hand are registered. In the trend control of lung tumors, for instance, a registration of the lung areas (b) is sufficient.